



**Submitted by:** Smith & Nephew, Inc.  
 Orthopaedic Division  
 1450 East Brooks Road  
 Memphis, Tennessee 38116

**Date of Summary:** January 10, 2014

**Contact Person and Address:** Bradley Heil  
 Regulatory Affairs Specialist  
 T (901) 399-6339  
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**Name of Device:** Smith & Nephew, Inc. Patient Matched Cutting Blocks

**Common Name:** Knee Prosthesis

**Device Classification Name and Reference:** CFR 888.3560 Knee joint patellofemorotibial polymer/metal/polymer semi-constrained cemented prosthesis  
 21 CFR 888.3565 Knee joint patellofemorotibial metal/polymer porous-coated uncemented prosthesis

**Device Class:** Class II

**Panel Code:** Orthopaedics/87

**Product Code:** OOG, JWH, MBH

#### **Device Description**

The Patient Matched Cutting Blocks were previously cleared for market via premarket notification K082358. Subject of this premarket notification are modifications to the software components used to design and manufacture the Patient Matched Cutting Blocks. The Patient Matched Cutting Blocks are designed and manufactured from patient imaging data (MRI, X-Ray).

#### **Technological Characteristics**

Software verification and validation testing was completed in line with FDA's guidance document entitled, "General Principles of Software Validation; Final Guidance for Industry and FDA Staff," dated January 11, 2002. A review of this testing has demonstrated that there are no new issues related to the safety and effectiveness of the subject device and the software will perform as intended. Clinical data was not needed to support the safety and effectiveness of the subject devices.

#### **Intended Use**

Smith & Nephew's Patient Matched Cutting Blocks are intended to be used as patient-specific surgical instrumentation to assist in the positioning of total knee replacement components intra-operatively and in guiding the marking of bone before cutting provided that anatomic landmarks necessary for alignment and positioning of the implant are identifiable on patient imaging scans.

The Patient Matched Cutting Blocks are intended for use with the following existing Smith & Nephew, Inc. knee systems and their cleared indications for use:

- Genesis 2 Knee System
- Legion Knee System
- Journey BCS Knee System
- Journey II Knee System

The Patient Matched Cutting Blocks are intended for single use only.

#### **Performance Data**

Smith & Nephew conducted a cadaveric assessment of the subject devices. The results of this study show that the patient matched cutting blocks designed using the case processing applications perform equivalent to conventional instrumentation or within clinically acceptable parameters with respect to resection depth, coronal alignment (varus/valgus), rotation and tibial posterior slope.

#### **Substantial Equivalence Information**

The subject devices are identical in function, intended use, indications for use, and material composition, and very similar in overall design to the Patient Matched Cutting Blocks cleared via premarket notification K082358.

**Table 1: Substantially equivalent predicates to the modified Patient Matched Cutting Blocks**

Manufacturer	Description	Submission Number	Clearance Date
Smith & Nephew, Inc.	Patient Matched Cutting Blocks	K082358	11/25/2008

#### **Conclusion**

As previously noted, this Traditional 510(k) Premarket Notification is being submitted to request clearance for the modified Patient Matched Cutting Blocks. Based on the similarities to the predicate components, a cadaveric assessment, and a review of the software validation testing performed, the devices are substantially equivalent to above predicate Patient Matched Cutting Blocks.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center – WO66-G609  
Silver Spring, MD 20993-0002

February 28, 2104

Smith & Nephew, Inc.  
Mr. Bradley Heil  
Regulatory Affairs Specialist  
1450 Brooks Road  
Memphis, Tennessee 38116

Re: K130708

Trade/Device Name: Smith & Nephew Patient Matched Cutting Blocks  
Regulation Number: 21 CFR 888.3560  
Regulation Name: Knee joint patellofemorotibial polymer/metal/polymer semi-constrained cemented prosthesis.  
Regulatory Class: Class II  
Product Code: JWH, MBH, OOG  
Dated: October 29, 2013  
Received: October 30, 2013

Dear Mr. Heil:

This letter corrects our substantially equivalent letter of December 11, 2013.

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA).

You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must

comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Vincent J. Devlin -S

for

Mark N. Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

**510(k) Number (if known):** K130708

**Device Name:** Smith & Nephew, Inc. Patient Matched Cutting Blocks

### Indications for Use:

Smith & Nephew's Patient Matched Cutting Blocks are intended to be used as patient-specific surgical instrumentation to assist in the positioning of total knee replacement components intra-operatively and in guiding the marking of bone before cutting provided that anatomic landmarks necessary for alignment and positioning of the implant are identifiable on patient imaging scans.

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- Genesis II Knee System
- Legion Knee System
- Journey BCS Knee System
- Journey II Knee System

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Prescription Use X  
(Part 21 CFR 801 Subpart AND/OR  
D)

Over-The-Counter Use  
(21 CFR 801 \_\_\_\_\_  
C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON  
ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)